



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/733,264

12/12/2003

Hideo Hoshuyama

118019

8658

25944 7590 11/09/2010  
OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

TSAI, TSUNG YIN

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

11/09/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com  
jarmstrong@oliff.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/733,264	<b>Applicant(s)</b> HOSHUYAMA, HIDEO	
	<b>Examiner</b> TSUNG-YIN TSAI	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Request for Continuous Examination***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/14/2010 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-7 and 9 have been considered but are moot in view of the new ground(s) of rejection.

### ***35 USC 102 – Claim Rejection***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-7 and 9 are rejected under 35 U.S.C. 102(b) as being unpatentable over Kuwata et al (US 2002/0025079).

(1) Regarding to claim 1, similarly claims 6 and 9:

- an image information generating part for dividing captured image data consisting of a signal having a plurality of data values of a plurality of pixels into a plurality of small areas, said small areas each consisting of a plurality of the pixels, and for generating, for each of said small areas, image information indicating a characteristic of the captured image data

**[figure 12 (image data is divided into blocks) and figures 13-14, and paragraph 0185-0188 (histogram of luminance distribution is generated, which is viewed as an image characteristic of the captured image data)];**

- a luminance value determining part for determining a luminance value indicating luminosity for each of the plurality of small areas of the captured image data

**[figure 12 (division to plurality of small area with further detail processing for luminance value in the vertical and horizontal direction for each square) and paragraph 0185-0188 (histogram of luminance of the captured image data with summation made in gridded units), especially paragraph 0188 (histogram of luminance distribution)];**

- an evaluation value determining part for calculating an evaluation value for each of the plurality of pixels, the evaluation value being calculated by selecting two or more small areas, including an area having the pixel for which the evaluation value is calculated and an other area having shorter distances to a pixel for which the evaluation value is being calculated from each of the plurality of pixels, and calculating the evaluation value for each pixel by weighing the respective luminance values of the selected small areas in accordance with the distance

Art Unit: 2624

from each pixel to each small area selected for each pixel for which the evaluation value is being calculated

**[figure 36-37 and paragraph 0276 (evaluating weighting per block with luminance is weighted for a specific picture element to eight surrounding picture elements). Examiner views "specific picture element" as the pixel of interest of the selected block for evaluation with luminance weighting against surrounding eight picture elements, which are the close or short distance from the evaluated pixel of interest.]; and**

- an image-processing part for performing correction on each of the pixels of the captured image data according to the evaluation value determined by said evaluation value determining part

**[figure 43, especially SC330-SC350 (contrast correction and lightness compensation result from determination/evaluation of generated luminance image characteristic from SC310)].**

(2) Regarding claim 2:

- said image-processing part includes a luminance level correcting part for correcting a luminance level of the captured image data

**[figure 43, especially SC330-SC350 (contrast correction and lightness compensation result from determination/evaluation of generated luminance image characteristic from SC310)]; and**

Art Unit: 2624

- said luminance level correcting part determines a luminance level correcting coefficient used for the luminance level correction according to the evaluation value for each of said pixels determined by said evaluation value determining part so as to perform the luminance level correction processing multiplying the coefficient with the evaluation values for each of said pixels of the captured image data

**[Figures 33-34 and paragraph 0269-0273, especially paragraph 0273 (contrast and lightness correction/compensation for the data collected and calculated in paragraph 0271). Figure 36-37 and paragraph 0276 disclose the evaluation process as discuss above and further teaches the calculating (multiplying) for the captured data, especially in figure 37 (b)-(d)].**

(3) Regarding claim 3:

- said evaluation value determining part performs a smoothing processing on the image information for each of said small areas generated by said image information generating part and determines the evaluation value according to the smoothed image information for each of the said small areas

**[paragraph 0283-0294, especially paragraph 0293 (weighting coefficient of luminance is evaluated and further process to be average/smoothing to be obtained)].**

(4) Regarding claim 5:

- wherein said evaluation value determining part determines the evaluation value by weighting the image information for each of said small areas in accordance with a ratio of distances from a pixel as a subject for the evaluation-value determination to a predetermined point in each of said small areas whose image information is to be referred to for the evaluation-value determination

**[figure 36-37 and paragraph 0276 (evaluating weighting per block with luminance is weighted for a specific picture element to eight surrounding picture elements)]**.

(5) Regarding claim 7:

- a divisional photometry part for dividing a subject field into a plurality of photometry areas and performing photometry for each of the photometry areas, wherein said image information generating part generates the image information based on information obtained from said divisional photometry part

**[figure 9 (division of the image by threshold means) and paragraph 0176-0179, especially paragraph 0178 (edginess determination is seen as image information from the threshold divisions)]**.

### ***35 USC 103 – Claim Rejection***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2624

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwata et al (US 2002/0025079) in view of Chen (US 6,487,309).

(1) Regarding claim 4:

Kuwata et al above teaches the evaluation value of correct low luminance of a corner illumination on the image information of small area

**[paragraph 0340 (evaluation of dark overall or contrast of edge picture elements)].**

Kuwata et al do not teach pre-correction processing with characteristic of a photo-taking lens used for generating the captured image data, which is taught by Chen

**[figure 1 and column 4 lines 50-60 (preprocessing unit connected with lens drive unit) and column 5 lines 60-67 (lens drive unit perform AF and AE and white balance processing are all seen as preprocessing correction on image information capture)].**

It would have been obvious to one skill in the art at the time of the invention to modify Kuwata et al by Chen using pre-processing of the lens to stage out the require computations, such that the end will not result in a massive time consuming computation.



### **Conclusion**

7. . The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Sekiguchi et al (US 2002/0102029) discloses Image coding/decoding method, image coding apparatus and image decoding apparatus
- Hirai et al (2001/0003557) discloses Photometry device
- Marimont et al (US 5,710,877) discloses User-directed interaction with an image structure map representation of an image

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TSUNG-YIN TSAI whose telephone number is (571)270-1671. The examiner can normally be reached on Monday - Friday 8 am - 5 pm ESP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571)272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2624

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vu Le/

Supervisory Patent Examiner, Art Unit 2624

/Tsung-Yin Tsai/

Examiner, Art Unit 2624

October 29, 2010